

CLAIMS:

✓ (1) A mounting for the road wheel of an automotive vehicle, said mounting comprising:

a housing including a radial portion having front and back faces and an axial portion formed integral with the radial portion and projecting beyond the front face of the radial portion;

a bearing located in the axial portion of the housing;

a hub having a shaft that extends into the bearing so that the hub can rotate in the housing about an axis, the hub also having a flange which projects outwardly from the shaft and is spaced from the front face of the radial portion of the housing;

a brake rotor attached to the flange of the hub and having a drum which surrounds the axial portion of the housing and a disk which is located along the radial portion;

a service brake mounted on the radial portion of the housing and having a caliper;

and

a park brake mounted on the housing within the drum and having a shoe.

✓ (2) A mounting according to claim 1 wherein axial portion of the housing also projects from the back face of the radial portion.

✓ (3) A mounting according to claim 2 wherein the radial portion of the housing contains a cutout located outwardly from the axial portion, and the service brake is in the cutout.

✓ (4) A mounting according to claim 3 wherein the radial portion of the housing along the front face of the radial portion carries a mechanism for urging the brake shoe against the drum of the brake rotor.

✓ (5.) A mounting according to claim 2 wherein the bearing includes inboard and outboard outer raceways carried by the axial portion of the housing, inboard and outboard inner raceways carried by the shaft of the hub, the raceways being inclined with respect to the axis, with the inner raceways being inclined in one direction and the outboard raceways being inclined in the opposite direction, and rolling elements arranged in inboard and outboard rows, with the rolling elements of the inboard row being between the inboard raceways and the rolling elements of the outboard row being between the outboard raceways.

✓ (6.) A mounting according to claim 5 and further comprising a target wheel carried by the spindle of the hub and a sensor in the housing and presented toward the target wheel for producing a signal that reflects the angular velocity of the target wheel.

0 (7.) A mounting according to claim 6 wherein the target wheel is located between the inner raceways of the bearing and is accessible from the back face of the radial portion of the housing.

103 ✓ (8.) A mounting according to claim 1 wherein the housing is a casting.

✓ (9.) A mounting for a road wheel of an automotive vehicle, said mounting comprising:

a housing having a radial portion provided with front and back faces and a sleeve-like axial portion cast integral with the radial portion and projecting from both the front and back faces of the radial portion;

a hub having a shaft in the axial portion of the housing and a flange attached to the shaft and located outside the housing where it is spaced from the front face of the radial portion; and

a bearing<sup>6</sup> between the shaft<sup>56</sup> of the hub<sup>4</sup> and the axial<sup>22</sup> portion of the housing<sup>2</sup>.

same as 5 ✓ 10. A mounting according to claim 9 wherein the bearing includes inboard and outboard outer raceways carried by the axial portion of the housing, inboard and outboard inner raceways carried by the shaft of the hub, the raceways being inclined with respect to the axis, with the inboard raceways being inclined in one direction and the outboard raceways being inclined in the opposite direction, and rolling elements arranged in inboard and outboard rows, with the rolling elements of the inboard row being between the inboard raceways and the rolling elements of the outboard row being between the outboard raceways.

same as 6 ✓ 11. A mounting according to claim 10 and further comprising a target wheel carried by the shaft of the hub and a sensor in the axial portion of the housing and presented toward the target wheel for producing a signal that reflects the angular velocity of the target wheel.

same as 7 ✓ 12. A mounting according to claim 11 wherein the target wheel is located between the inner raceways of the bearing and a cable extends from the sensor at the back face of the radial portion on the housing.

13. ✓ A mounting according to claim 9 and further comprising an arcuate brake shoe<sup>140</sup> mounted along the front face of radial portion<sup>60</sup> and radially outwardly from the segment<sup>20</sup> of the axial portion<sup>22</sup> that projects beyond the front face<sup>60</sup>, the brake shoe<sup>140</sup> being capable of moving radially outwardly.

✓ 14. A bearing according to claim 13 and further comprising a brake rotor<sup>8</sup> mounted on the flange<sup>58</sup> of the hub<sup>4</sup> and having a drum<sup>100</sup> located around the arcuate brake shoe<sup>140</sup>.

✓ (15.) A bearing according to claim 14 wherein the brake rotor further has a disk which extends radially outwardly from the drum along the front face of the radial portion for the housing.

103 ✓ (16.) A mounting according to claim 15 and further comprising a service brake mounted on the radial portion of the housing and having pads between which the disk of the brake rotor revolves.

NE 17. A mounting according to claim 9 wherein the housing has arms formed integral with its radial portion so that the housing serves as a steering knuckle.

NE 18. A mounting according to claim 9 wherein the housing is attached to an axle tube and the shaft of the hub extends through the tube.

103 (19.) A housing for a road wheel of an automotive vehicle, said housing comprising: a radial portion having a front face and a back face, the radial portion also having a generally circular periphery and a cutout opening out of the periphery; and a sleeve-like axial portion formed integral with the radial portion and projecting beyond the front and back faces of the radial portion, the axial portion being configured to hold a bearing.

✓ (20.) A housing according to claim 29 and further comprising a park brake post formed integral with the radial portion.

NE 21. A housing according to claim 19 and further comprising arms formed integral with the radial portion to enable the housing to pivot at the arms and function as a steering knuckle.

NE 22. A housing according to claim 21 formed as a casting.

NE 23. A housing according to claim 21 formed as a forging.

NE 24. A housing according to claim 21 formed as a weldment.

20220708 10:55:39